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1. (Currently amended) A system for increasing fuel storage volume a carriage capacity of external fuel stores suspended on an aerial vehicle, comprising at least one external extended fuel stores configuration, the comprising:

at least one dual functionality external fuel tank carrier pylon providing carriage capability and fuel transfer and control capabilities from at least one externally carried fuel tank and to support fuel transfer and control capabilities from at least one associated single functionality external fuel tank carrier pylon carrying at least one external fuel tank;

at least one single functionality external fuel tank carrier pylon providing carriage capability and fuel transfer and control capabilities from at least one externally carried fuel tank;

at least one externally mounted Stores Transfer Kit to provide enclosure least one external fuel line and at least one external fuel control line between the at least one single functionality external tank carrier pylon and at least one dual functionality external tank carrier pylon, said external fuel located externally to the aerial vehicle and connected to an existing fuel system of the at least one aerial vehicle;

whereby an alternative external fuel transfer and fuel control path is established between at least one external fuel tank carried by the at least one single functionality external fuel tank carrier pylon and the fuel system of the aerial vehicle via the at least one externally mounted Stores Transfer Kit, and the at least one dual functionality external fuel tank carrier pylon, such that the external fuel tank, carried by a pylon not connected to the fuel system of the aerial vehicle, is enabled to provide fuel directly to the fuel system of the aerial vehicle.

2. (Currently amended) The system according to claim 1 wherein the at least one dual functionality external fuel tank carrier pylon further comprises:
at least one fuel connector to link a fuel transfer system of the at least one dual functionality external fuel tank carrier pylon to at least one fuel connector to the aerial vehicle fuel system;

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at least one compressed air connector to link a compressed air system or at least one dual functionality external fuel tank carrier pylon to at least one compressed air connector of the aerial vehicle fuel control system;

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at least one electric power and signal connector to link an electrical system or at least one dual functionality external fuel tank carrier pylon to at least one electrical and signal connector of the aerial vehicle fuel control system;

at least one fuel connector to link the fuel transfer system of the aerial vehicle to at least one fuel extension line installed in the at least one externally mounted Stores Transfer Kit;

at least one compressed air connector to link the compressed air system or at least one dual functionality external fuel tank carrier pylon to at least one compressed air extension line installed in the at least one external extension line of the Stores Transfer Kit;

at least one electric power and signal connector to link the electrical system or at least one dual functionality external fuel tank carrier pylon to at least one electrical and signal line installed in the at least one external extension line of the Stores Transfer Kit;

3. (Currently amended) The system according to claim 1 wherein the at least one single functionality external fuel tank carrier pylon further comprises the feature of:

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at least one electrical connector to link an electrical control system of the aerial vehicle to at least one single functionality external tank carrier pylon to a fuel system of the aerial vehicle;

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at least one fuel connector to link the fuel transfer system of the aerial vehicle to at least one fuel extension line installed in the at least one externally mounted Stores Transfer Kit;

at least one compressed air connector to link a compressed air system or at least one single functionality external fuel tank carrier pylon to at least one compressed air extension line installed in the at least one externally mounted Stores Transfer Kit;

at least one electric power and signal connector to link the electrical system of the at least one single functionality external fuel tank carrier pylon; at least one electrical and signal line installed in the at least one externally-mounted Stores Transfer Kit.

4. (Currently amended) The system according to claim 1 wherein the at least one externally mounted Stores Transfer Kit comprises the elements of:

at least one aerodynamically shaped external envelope to protect the internal elements and to provide aerodynamic efficiency to the aerial vehicle in which the extended external fuel stores configuration is applied;

at least one extension fuel line linking a fuel transfer system of the at least one single functionality external fuel tank carrier pylon to a fuel transfer system;

at least one dual functionality external fuel tank carrier pylon;

at least one extension compressed air line linking the compressed air system;

at least one single functionality external fuel tank carrier pylon to a compressed air system of the at least one dual functionality external fuel tank carrier pylon;

at least one extension electric power and signal link an electrical system comprising the at least one single functionality external fuel tank carrier pylon to the electrical system of the at least one dual functionality external fuel tank carrier pylon;

5. (Original) The system according to claim 1 further comprises the elements:

at least one fuel quantity monitoring device to display the quantity of fuel carried by the at least one single functionality external fuel tank carrier pylon; at least one display device to indicate the status of the at least one external fuel tank and the status of the at least one functionality external fuel tank carrier pylon;

at least one control device to control the fuel transfer sequence from the one or more fuel containers constituting the external extended fuel stores configuration.

6. (Original) The system according to claim 2 wherein the dual functionality external fuel tank carrier pylon further comprises a specific indicator to control the

sequence of the fuel stored in the at least one fuel tank suspended on the one single functionality external fuel carrier pylon and in the at least one tank suspended on the at least one dual functionality external fuel tank pylon.

Deleted: The system according to claim 6 wherein the dual functionality external fuel carrier pylon further comprises a T-valve to control the transfer sequence of the fuel stored in the at least one external fuel tank suspended on the at least one single functionality external fuel carrier pylon and the fuel stored in the at least one external tank suspended on the at least one dual functionality external fuel tank carrier pylon.

7. (Cancelled),
8. (Original) The system according to claim 1 wherein the aerial vehicle is a role military aircraft.
9. (Original) The system according to claim 8 wherein the aerial vehicle is Fighting Falcon multi-role fighter aircraft.
10. (Currently amended) The system according to claim 8 wherein the aerial vehicle is an Uninhabited Aerial Vehicle (UAV).
11. (Currently amended) The system according to claim 1, wherein the aerial vehicle is a civilian aircraft.
12. (Currently amended) The system according to claim 1, wherein the aerial vehicle is a multi-role rotary-wing aircraft.
13. (Cancelled),
14. (Cancelled),
15. (Cancelled),
16. (Original) The system according to claim 1 wherein the dual functionality external fuel tank carrier pylon is a standard external fuel tank carrier converted to dual functionality role.

Deleted: The system according to claim 1 further comprises at least one external fuel container utilized as fuel storage means to supply energy means to the propulsion system of the aerial vehicle.

Deleted: The system according to claim 13 wherein the at least one external fuel container is a 270-gallon tank.

Deleted: The system according to claim 14 wherein the at least one external fuel container is a 600-gallon fuel tank.

- 17.(Original) The system according to claim 16 wherein the at least one functionality external fuel tank carrier pylon is a novel, specifically designed developed device.
- 18.(Original) The system according to claim 1 wherein the at least one functionality external fuel tank carrier is a novel, specifically designed developed device.
19. (Original) The system according to claim 1 wherein the elements of the external fuel stores configuration are transparent to the aerial vehicle.
- 20.(Original) The system according to claim 1 wherein the elements of the external fuel stores configuration are detachably installed on an aerial vehicle.
21. (Original) The system according to claim 1 wherein the elements of the extended fuel stores configuration include secondary control and emergency release means.
- 22.(Original) The system according to claim 1 wherein the at least one functionality external fuel tank carrier pylon is suspended on an inboard stores station having fuel transfer, control, refueling, monitoring, and jettisoning capabilities.
- 23.(Original) The system according to claim 1 wherein the at least one functionality external fuel tank carrier pylon is suspended on at least one of the wing “pseudo-wet” stores station having jettisoning capabilities.
- 24.(Currently amended) The system according to claim 23 wherein comprising at least one outboard stores station is provided with a dual “pseudo-v

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functionality allowing and supporting the carriage of at least one functionality external fuel tanker pylon and other pre-defined stores.

25. (Original) The system according to claim 4 wherein the externally mounted Transfer Kit is substantially re-configurable according to the types and variety of aerial vehicles to provide for optimal aerodynamic characteristics of the acceptable flight envelope.
26. (Original) The system according to claim 4 wherein the externally mounted Transfer Kit is operative in the transfer of fuel stores between at least two carriers.
27. (Original) The system according to claim 4 wherein the externally mounted Transfer Kit is operative in the transfer of stores between an external store and an internal store.
28. (Original) The system according to claim 1 wherein the externally mounted Transfer Kit is operative in the transfer of electronic countermeasures between at least two stores carriers.
29. (Original) The system according to claim 4 wherein the externally mounted Transfer Kit is operative in the transfer of projectiles between at least two carriers.
30. (Currently amended) A method for increasing the fuel storage volume and carriage capacity of external fuel stores suspended on an aerial vehicle comprising:
converting at least one standard external fuel tank carrier pylon in order to support for the transfer, monitoring and control of a fuel store held in at least one fuel contained suspended on an adjacent external fuel tank carrier pylon;

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~~Deleted: developing at least one externally-mounted Stores Transfer Kit to provide external extension fuel and control lines between the at least one converted external fuel tank carrier pylon and the at least one novel external fuel tank carrier pylon.~~

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obtaining at least one dual functionality external fuel tank carrier pylon in ·
provide the transfer of fuel stored in a carried external fuel tank to the aircraft system via the at least one converted external fuel tank carrier pylon;

transferring fuel between newly added fuel tanks carried by pylons that connected to the fuel system of the aerial vehicle to dual functionality fuel pylon mounted on an existing external fuel tank, using a fuel line external fuel system of the aircraft vehicle;

the newly added fuel tanks provide fuel to directly the fuel system of the one aerial vehicle;

thereby forming an alternative external fuel transfer path between an at least one external fuel tank suspended on the at least one dual functionality external fuel tank carrier pylon via the at least one external Stores Transfer Kit, via at least one converted external fuel tank carrier pylon, to the fuel system of an aerial vehicle;

31.(Previously amended) The method according to claim 30 further comprises steps of:

designing the elements constituting the at least one external extended fuel configuration;

ground testing the elements constituting the at least one external extended stores configuration;

flight testing the elements constituting the at least one external extended stores configuration;

altering the combination of the elements of the at least one external fuel configuration in accordance with the types and variants of an aerial vehicle certifying the at least one extended external fuel stores configuration.

32.(Original) The method according to claim 30 further comprises modifying in an ergonomic manner the Stores Control Console of the aerial vehicle by the addition of fuel gauges, fuel status displays, and fuel transfer selectors.